

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-16.(Cancelled).

17.(Currently Amended) A method of operating a combustion system having an electrostatic precipitator (ESP) and a selective catalytic reduction (SCR) system stack to lower the acid dewpoint temperature of the flue gas and optimize ESP function, the method comprising the steps of:

- a) ~~—determining if the SCR system is to be by-passed;~~
 - b) ~~—by passing the SCR system if the SCR system is determined to be by-passed;~~
 - e) partially combusting the fuel in a first stage to create a chemically reducing environment in situ;
 - e) adjusting the reducing environment for a sufficient time period such that the flue gas acid dewpoint temperature is lowered to a desirable level temperature lower than the temperature of flue gas traveling through the stack by reducing SO_3 formed during combustion to SO_2 by electron addition to create an SO_3 concentration configured to improve ESP function; and;
 - e) combusting the remainder of the fuel and combustion intermediates in a second stage with an oxidizing environment, ~~wherein residence time in the oxidizing environment is selected to maintain the SO_3 concentration substantially within a range desirable for ESP function;~~
- thereby lowering the acid dewpoint temperature of the flue gas by reducing the acid concentration of the flue gas and optimizing ESP function.

18.(Currently Amended) The method of claim 17, ~~further~~ including the step of micro-staging the first stage fuel combustion.

19.(Original) The method of claim 18, wherein the micro-staging is provided through the use of low-NOx burners.

20.(Currently Amended) The method of claim 17, ~~further~~ including the step of macro-staging the first stage of fuel combustion.

21.(Original) The method of claim 20, wherein the macro-staging is provided through the use of over-fired air.

22.(Currently Amended) The method of claim 17, ~~further~~ including a combination of micro-staging and macro-staging.

23.(Original) The method of claim 22, wherein the micro-staging is provided by low-NOx burners and the macro-staging is provided by over-fired air.

24.(Original) The method of claim 17, wherein the fuel is coal.

25.(Previously Presented) A method of operating a combustion system to decrease the acid dewpoint temperature of its flue gas to a temperature lower than the temperature of flue gas traveling through a stack of the combustion system ~~having an electrostatic precipitator (ESP) and a selective catalytic reduction (SCR) system~~, the method comprising the steps of:

- a) partially combusting the fuel in a first stage to create a chemically reducing environment in situ;
- b) combusting the remainder of the fuel and combustion intermediates in a second stage with oxidizing environment;
- e) measuring the acid dewpoint of the flue gas;
measuring the temperature of the flue gas traveling through the stack;

d) ~~determining if the SCR system is in operation;~~
e) ~~if the SCR system is not in operation,~~ **if the measured acid dewpoint temperature is higher than the measured flue gas temperature,** adjusting the reducing environment for a sufficient time period such that SO_3 formed during combustion is reduced to SO_2 by electron addition to ~~create an SO_3 concentration configured to improve ESP function;~~ thereby decreasing the acid dewpoint temperature of the flue gas and optimizing ESP function.

26.(Currently Amended) The method of claim 25, ~~further~~ including the step of micro-staging the first stage fuel combustion.

27.(Original) The method of claim 26, wherein the micro-staging is provided through the use of low- NO_x burners.

28.(Currently Amended) The method of claim 25, ~~further~~ including the step of macro-staging the first stage of fuel combustion.

29.(Original) The method of claim 28, wherein the macro-staging is provided through the use of over-fired air.

30.(Currently Amended) The method of claim 25, ~~further~~ including a combination of micro-staging and macro-staging.

31.(Original) The method of claim 30, wherein the micro-staging is provided by low- NO_x burners and the macro-staging is provided by over-fired air.

32.(Original) The method of claim 25, wherein the fuel is coal.

33. (Currently Amended) The method of claim 17, wherein SO_3 concentration is adjusted to about 15 to 20 ppm **at an ESP component of the combustion system, thereby optimizing ESP function.**

34.**(Currently Amended)** The method of claim 25, wherein SO₃ concentration is adjusted to about 15 to 20 ppm **at an ESP component of the combustion system, thereby optimizing ESP function.**